

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2000028748
PUBLICATION DATE : 28-01-00

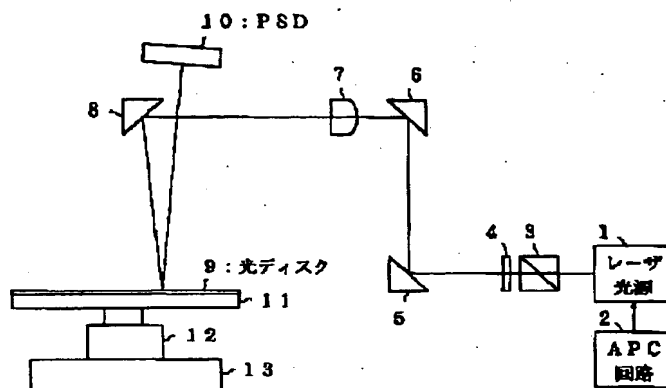
APPLICATION DATE : 10-07-98
APPLICATION NUMBER : 10196093

APPLICANT : KANOMAX JAPAN INC;

INVENTOR : IZUMO SHIGERU;

INT.CL. : G01V 8/12 G01B 9/02 G01B 11/30
G11B 7/26

TITLE : DEVICE FOR DISCRIMINATING
APPLICATION OF PROTECTION FILM
OF OPTICAL DISK



ABSTRACT : PROBLEM TO BE SOLVED: To automatically detect that no protection film has been applied by rotating an optical disk, at the same time, changing the irradiation position of a light beam in a radius direction for scanning the surface of the optical disk, and detecting an AC component due to interference based on the reflected light on the front and rear surfaces of the protection film.

SOLUTION: An optical disk 9 is retained on a base 11, and is rotated at fixed speed by a rotary control part 12. Also, the optical disk 9 is moved at the fixed speed in the radius direction by a slide driving part 13 along with the rotary control part 12, and the entire recording surface of the optical disk 9 can be scanned. Then, when a protection film is applied onto the surface of the optical disk 9, one part of a laser beam is reflected on the surface, and the others are refracted, reflected on a metal film, pass through the protection film again, and are received by a PSD(position sensitive device) 10, thus generating interference by the reflected light on the front and back surfaces, and obtaining an AC component. The AC component has only a high frequency component according to signal change due to the warpage or the like of the optical disk 9.

COPYRIGHT: (C)2000,JPO